Great Basin Coordination Center

Fuels and Fire Behavior Advisory

Updated August 18, 2016

Subject: Potential for extreme fire behavior is present in Western/Northern Nevada, Southeast Oregon, Southern and Central Idaho and Northwest Utah north of I-70 due to low fuel moistures, heavy fine fuel (grass) loading, and prolonged dry weather. Areas with sagebrush and a heavy grass fuel load are at the greatest risk with sustained winds greater than 20 mph.

Discussion: Very high to extreme fire behavior has been reported from June through mid-August and is expected to continue through the remainder of August.

Near to above normal winter precipitation, along with a wet spring resulted in above normal fine fuel loading. Some areas are reporting grass loading 2 to 3 times above normal conditions. Hot and dry conditions continued through early August, with some areas experiencing dry conditions for 4 to 8 weeks or longer, causing live fuels to rapidly dry to critical levels. **Live fuel moisture decreased to record or near record minimums in many areas due to extended hot and dry conditions.** The U.S. Drought Monitor shows the area to be in moderate to severe drought, with abnormally dry conditions farther east. **The Energy Release Components (ERC) are above the 90th-97th percentile and above levels during the big fire year of 2012, with some areas exceeding historical maximums.**

Showers and thunderstorms will spread north across the region at times through August with dry storms along the northern and western areas. **Any wetting rainfall or higher humidity will not be widespread and only temporarily modify fuel conditions.** Ignition potential is expected to be higher than normal with these storms. Precipitation is less likely during the last half of August along with an increased potential for gusty winds associated with dry cold frontal passages, especially across Idaho into Northeast Nevada and Northern Utah.

Concerns to Firefighters and the Public:

- Fires can exhibit: extreme rates of spread, elongated flaming fronts, increased fire brands resulting in long range spotting. These factors contribute to the **high resistance to control of fires that have occurred over the last 2 weeks,** and promote flare-ups on direct lines.
- Flashy fine fuels, sagebrush and pinyon-juniper will ignite easily and exhibit **extreme rates of spread**.
- Anticipate dust devils and fire whirls to develop in hot, dry and unstable conditions; especially in fine flashy fuels**.** Fire whirls will rapidly increase fire behavior to extreme conditions, which can easily jeopardize control lines and quickly increase fire growth rates.
- Large areas can be consumed in all fuel types in short time periods, even in low slope and wind conditions.
- Fire intensity will be greater and burn periods will be longer with active fire behavior continuing during the overnight hours; especially at mid to higher elevations.
- Short periods of precipitation and higher relative humidity will moderate fire behavior for only short time periods. Hot and dry weather will quickly dry fine fuels and return fire behavior conditions to extreme.
- **Don't be fooled by low fine fuel heights. Fine fuel loading is dense and continuous and will support extreme rates of spread.**

Mitigation Measures:

- Review and become familiar with evacuation plans in communities that may be affected.
- Use larger safety zones than recommended and plan escape to them sooner.
- Ensure firefighters have good anchor points - keeping one foot in the black.
- Lookouts-Communications-Escape Routes-Safety Zones (LCES)
- Indirect tactics may be the most effective, but increased emphasis needs to be placed on LCES.
- Establish trigger points and constantly re-evaluate tactics/weather/fire behavior to ensure safety.
- Consult the latest weather and fire danger information at http://gacc.nifc.gov/gbcc/.

Area of Concern: Areas of concern include Western/Northern Nevada, Southeast Oregon below 5,500, Southern and Central Idaho, and Northwest Utah north of I-70 especially in the heavy fine fuel (grass) loading and sagebrush.